

NATURAL DISASTER REDUCTION INITIATIVE

National Oceanic & Atmospheric Administration
U.S. Department of Commerce

In FY 2000, NOAA requests an increase of \$42.1 million for the Natural Disaster Reduction Initiative (NDRI) to implement a second phase of the DOC strategy to reduce and mitigate against the impacts of extreme natural events. Many of the extreme events, previously thought to occur only once in a century, are recurring far more frequently, threatening the lives, property, natural resources, and vitality of local and regional economies throughout the nation. Over the last few years weather-related natural disasters alone have cost the United States more than \$50 billion a year in damages. To provide mechanisms for people and property to escape hazards when in their paths. This cross-NOAA initiative draws from NOAA's strengths in environment forecast and warning systems, data and information management, research and development, and federal-state partnerships for coastal resource management. FY 2000 funding will be used to support line items such as the U.S. Weather Research Program, space weather warnings, and accelerated deployment of the flood forecasting system.

Local Warnings & Forecasts

Within NDRI, NOAA requests an increase of \$14 million for local warnings and forecast services. This increase is an investment which will allow NOAA to substantially improve forecast lead-times for weather and natural disasters. NOAA also requests an increase of \$5.4 million from the FY 2000 base for Weather Forecast Office (WFO) construction and the Secretary's mitigation actions. The mitigation effort requires the construction and operation of two new WFOs and attendant Advanced Weather Interactive Processing System (AWIPS) units in Caribou, ME and Key West, FL. These are necessary to provide these communities with adequate protection of life and property.

Satellite Observing Systems

This sub-activity, a \$1.0 million increase initiative, provides for the operation of current polar-orbiting and geostationary satellites; and production and distribution of satellite products. Included is also planning for the follow-on satellite systems and the development of new and improved applications and products for a wide range of Federal agencies, state and local governments, and private users.

AWIPS Operations & Maintenance

NOAA requests a total of \$38.0 million to continue the operation and maintenance phase of the AWIPS program. This represents an increase of \$25.8 million over the FY 2000 base level. The FY 2000 request will expand operation and maintenance support for the entire NWS AWIPS network and fund systems evolution activities. AWIPS integrates satellite and radar data and provide the local forecaster with a capability that will significantly improve forecasts and warnings. It will also provide the communications capability needed to allow internal and external users access to much of NOAA real-time environment data. AWIPS will be the data integrator and nerve center of the operations at each Weather Forecast Office receiving the high-resolution data from a multiple of sources.

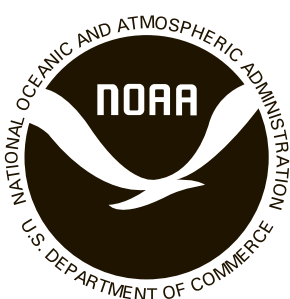
Advance Hydrologic Prediction System (AHPS)

NOAA requests an increase of \$2.2 million to initiate the implementation of the AHPS. AHPS is an integrated a real time modeling and data management/analysis system that will significantly improve flood forecasting and water management in the United States. AHPS will provide new forecasts depicting magnitudes of river levels and river flow volumes for periods of days to several months into the future. Its national implementation will began in the Upper Midwest, concentrating on the Red River of the North, and the Pacific Northwest, focusing on the Columbia River Basin. AHPS promises to save lives and provide the National economy \$600 million each year through fewer flood losses and improved water resources management for risk based decision making. This system will greatly improve the Nation's capability to take timely and effective actions to mitigate the economic losses from major floods and droughts.

U.S. Weather Research Program (USWRP)

NOAA requests an increase of \$1.5 million for the USWRP to improve the forecast accuracy and lead-time for hurricane landfall location using state-of-the art instruments deployed from NOAA aircraft during coordinated hurricane surveillance missions. USWRP will improve the accuracy of predictions for emergency preparedness, ultimately saving lives and property. Enhancing the economic and social benefits of improved hurricane tracking and landfall

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predictions fulfills an important part of NOAA's mission goal to Advance Short-Term Warning and Forecast Services.

Global Disaster Information Network (GDIN)

An increase of \$2.0 million is requested to establish an integrated Global Disaster Information Network (GDIN) to improve all phases of disaster management. This will be a public/private partnership to develop an information system for those who manage and those who are affected by disasters.

Coastal Vulnerability

An increase of \$1.0 million is requested to support activities proposed to expand work with coastal states to develop coastal risk atlases and provide new remote sensing data in a more timely and effective manner. This will allow coastal communities to better prepare for and recover from natural disasters, and assess the impacts of natural hazards on coastal habitats. Hazardous risk tables will be developed for various habitat types important to fisheries management.

National Polar Orbiting Environmental Satellite System (NPOESS)

The FY 2000 request for the Polar Orbiting Systems includes an increase of \$30.1 million for NOAA's share of the National Polar Orbiting Environmental Satellite System (NPOESS) program. In FY 2000, the NPOESS program will complete Phase I design and development of five key sensors and algorithms, initiate Phase II production of these sensors to meet the civil and national security requirements for acquiring and disseminating global and regional, space based, remotely-sensed environmental data.

GOES N-Q—NEXRAD—Radiosondes

The FY 2000 request for the Geostationary System includes an increase of \$20.2 million due primarily to GOES N-Q space acquisition portion of the program, inclusion of development funds for advanced instruments to be ready for the GOES-Q satellite, and the upgrading and replacements of aging ground systems that will remain operational through the life of GOES-Q. NOAA requests a total of \$9.6 million for NEXRAD acquisition in the PAC account, an increase of \$2.6 million over the FY 2000 base. The NEXRAD network provides nationwide Doppler radar coverage, improving detection of severe weather and floods and increasing warning lead time for tornadoes. The funding request will support the NEXRAD product improvement initiative and continue acquisition closeout activities. The request for product improvement will support the migration to the open systems architecture

platform, improving the maintainability and overall cost efficiency of the NEXRAD. NOAA requests an increase of \$6.4 million to continue the replacement the upper air radiosonde network. The total FY 2000 planned investment of \$8.4 million will permit implementation of the program according to a five year system replacement schedule. The radiosonde network provides critical upper air observations which are the principal data source for all weather forecasts. Modern radiosondes and ground receiving equipment will permit more efficient use of radio frequency spectrum and ensure reliable and consistent upper air data acquisition.

GEOSTORMS (follow-on to ACE)

NOAA requests an increase of \$4.3 million to fund the GEOSTORM Program. GEOSTORMS is the follow-on to the Advance Composition Explorer (ACE) and maintains operational satellite continuity for Real-Time Solar Wind (RTSW) data requirement. These observations are the only way to tell whether a solar storm will hit Earth. RTSW observations have increased forecast accuracy dramatically. Power companies and other vulnerable industries count on solar wind warning products to trigger preventive measures that help avert massive utility blackouts and satellite failures. Industry has told NOAA to make this our number one priority. The program is so integral to USAF and NASA requirements and plans that they are contributing 25% to 50% of the costs.

Aircraft Service/GI-V

Upper Air Evolution: HPCC/FSL - NOAA's request for the Aircraft Service includes an increase of \$0.4 million for a second flight crew for NOAA's G-IV high altitude jet to meet the operational requirement of 24-hour storm surveillance. NOAA's request for an increase of \$0.6 million will also provide commercial aircraft observations (ACARS) for operational use in numerical weather prediction models. Aircraft temperature and wind profiles already have yielded demonstrated improvements in NWS forecasts. NOAA also requests an increase of \$1.5 million for the Forecast System Laboratory (FSL) massively parallel computer to build and evaluate mesoscale weather prediction models and to improve the national weather observing system.

NDRI System Reductions of PAC

FY 2000 reflects a number of NOAA's major acquisition programs which are nearing completion. These include GOES I-M; POLAR K-N; AWIPS system acquisition; and Central Computer. ☺